

BIRONELLA GRACILIS THEOBALD, 1905 (INSECTA, DIPTERA):
PROPOSED VALIDATION UNDER THE PLENARY POWERS.
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The object of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to validate the specific name *gracilis* Theobald, 1905, as published in the combination *Bironella gracilis*, in order to prevent confusion resulting from the rejection of this widely-used name. The facts of the case are set out below, and in support of this application, a list containing all the references that could be traced is given in Annexes 1-3.

(2) The genus *Bironella* was described by F. V. Theobald in 1905 in *Ann. Mus. nat. Hung.* 3 : 69. The type-species, by monotypy, is *Bironella gracilis* Theobald, 1905.

(3) The genus *Bironella* Theobald, 1905, was recognised as a valid genus by all authors publishing on it up to 1924, by half the authors between 1924 and 1938 and by all authors since 1939.

(4) Christophers (1924) treated *Bironella* Theobald, 1905, as a subgenus of *Anopheles* Meigen, 1818. This usage was followed by half the authors publishing on it between 1924 and 1938.

(5) When *Bironella* Theobald, 1905, was treated as a subgenus of *Anopheles* Meigen, 1818, the name *Bironella gracilis* Theobald, 1905, became a secondary homonym of *Anopheles gracilis* Donitz, 1902. Christophers (1924) therefore proposed the new name *Anopheles bironelli* for *Bironella gracilis* Theobald, 1905.

(6) *Anopheles gracilis* Donitz, 1902, is a subjective synonym of *Anopheles gambiae* Giles, 1902 (cf. De Meillon, 1947, *Pub. S. Afr. Inst. Med. Res.* No. 49 : 190). Location of the type of *A. gracilis* is unknown ; Dr. F. Peus has advised us that it is not in the Zoological Museum of the University of Berlin, where the type specimens of other mosquito species described by Donitz are deposited.

(7) The name *Anopheles bironelli* Christophers, 1924, was used by those authors who followed Christophers in treating *Bironella* as a subgenus of *Anopheles*, i.e. half the authors publishing on it between 1924 and 1938.

(8) The name *Bironella gracilis* Theobald, 1905, was used by all authors prior to Christophers (1924), by half the authors publishing on it between 1924 and 1938, and by all authors between 1939 and 1957.

(9) Stoebe (1957) pointed out that *Bironella gracilis* Theobald, 1905, a rejected secondary homonym, falls as a synonym of *Bironella bironelli* (Christophers, 1924). The name *Bironella bironelli* (Christophers, 1924) has in addition been used twice for this species (between 1924 and 1938).

(10) The grounds of this application are :

(a) The union of the nominal genera *Bironella* and *Anopheles* by Christophers (1924) was at that time, and has since continued to be, widely regarded by specialists in the Culicidae as being unjustified on taxonomic grounds. Christophers himself (1924, p. 4) stated that his personal bias was towards recognition of *Bironella* as a genus.

(b) *Bironella gracilis* Theobald, 1905, is a well-established name in current use, and has been in continuous use for the species since it was first described. Of the authors who between 1924 and 1938 used the name *Anopheles bironelli* Christophers, 1924, those who continued to publish reverted to the use of the name *Bironella gracilis* Theobald, 1905.

(c) The name *Bironella bironelli* (Christophers, 1924) had only been used twice, and then inconsistently (see Annexe 3), for this species prior to 1957. Reintroduction of this name will upset the present stable nomenclature and lead to confusion in the literature.

(11) For the reasons set forth above, we ask the International Commission on Zoological Nomenclature :

- (1) to Rule under the plenary powers that *Bironella gracilis* Theobald, 1905, be not invalidated by its senior secondary homonym *Anopheles gracilis* Donitz, 1902 ;
- (2) to place the generic name *Bironella* Theobald, 1905 (gender : feminine), type-species, by monotypy, *Bironella gracilis* Theobald, 1905, on the Official List of Generic Names in Zoology ;
- (3) to place the specific name *gracilis* Theobald, 1905, as published in the binomen *Bironella gracilis* (type-species of *Bironella* Theobald, 1905) on the Official List of Specific Names in Zoology ;
- (4) to place the specific name *bironelli* Christophers, 1924, as published in the binomen *Anopheles bironelli* (a junior objective synonym of *gracilis*, *Bironella*, Theobald, 1905) on the Official Index of Rejected and Invalid Specific Names in Zoology.

ANNEXE 1

Particulars of the usage of the name *Bironella gracilis* Theobald, 1905.
Theobald, 1905, *Ann. Mus. nat. Hung.* 3 : 69 (original publication of name *Bironella gracilis*)

Theobald, 1907, *Monogr. Culicidae* 4 : 121

Theobald, 1910, *Monogr. Culicidae* 5 : 74

Taylor, 1919, *Proc. Linn. Soc. N.S.W.* 43 : 827

Swellengrebel, 1921, *Meded. Kolon. Inst. Amst.* 15 (Trop. Hyg.) 10 : 142

Brug & De Rook, 1922, *Bull. Soc. Path. Exot.* 15 : 305

Edwards, 1922, *Bull. ent. Res.* 13 : 98

Heydon, 1923, *Med. J. Aust.* (1923) 2 : 626

Cooling, 1924, *Serv. Publ. Dep. Hlth. Aust.* (Trop. Div.) No. 2 : 7

Cooling, 1924, *Serv. Publ. Dep. Hlth. Aust.* (Trop. Div.) No. 3 : 136

Edwards, 1924, *Bull. ent. Res.* 14 : 355

Hill, 1925, *Proc. Roy. Soc. Vic.* 37 : 65

- Ferguson, 1926, *Proc. Pan-Pac. Sci. Congr.* (1923) 2 : 1479
 Edwards, 1930, *Bull. ent. Res.* 21 : 287
 Taylor, 1930, *Trans. 7th Congr. Far East. Ass. Trop. Med.* (1927) 3 : 158
 Soesilo & van Slooten, 1931, *Meded. Dienst. Volksgezondh. Ned.-Ind.* 71 : 129
 (used 3 times—see also Annexe 3)
 Strickland & Chowdhury, 1931, Anopheline larvae of countries from India and Orient to Antipodes, Calcutta : 3
 Edwards, 1932, *Genera Insect.* 194 : 33
 Christophers, 1933, *Diptera*, Vol. IV. Fauna of British India : 96
 Brug, 1934, *Geneesk. Tijdschr. Ned.-Ind.* 74 : 72
 Taylor, 1934, *Serv. Publ. Dep. Hlth. Aust. (School Pub. Hlth. Trop. Med.)* No. 1 : 8
 Russell, Rozeboom & Stone, 1943, Keys to the Anopheline Mosquitoes of the World : 139
 Smart, 1943, *Insects of Medical Importance* : 147
 Lee & Woodhill, 1944, *Monogr. Dep. Zool. Univ. Sydney* 2 : 51
 Belkin, Knight & Rozeboom, 1945, *J. Parasit.* 31 : 246
 King & Hoogstraal, 1946, *J. Nat. Malar. Soc.* 5 : 155
 Laird, 1946, *Trans. Roy. Soc. N.Z.* 75 : 469
 Brug & Bonne-Wepster, 1947, *Chron. Nat.* 103 (10–11) : 4
 Mackerras, 1947, *Med. J. Aust.* (1947) 1 : 5
 Roberts, 1948, *Proc. Roy. Soc. Qd.* 59 : 94
 Smart, 1948, *Insects of Medical Importance* (2nd edn.) : 152
 King, 1949, in Boyd, *Malariology* 1 : 509
 Stoker & Koesoemawinangoen, 1949, Illustrated map of the Anopheline Imagines of Indonesia (English translation), Djakarta : XIV
 Bonne-Wepster, 1951, *Docum. Neerl. Indones. Morb. Trop.* 3 : 67
 Bonne-Wepster & Swellengrebel, 1953, Anopheline Mosquitoes of Indo-Aust. region, Amsterdam : 52
 Horsfall, 1955, Mosquitoes. Their Bionomics and Relation to Disease : 43
 Iyengar, 1955, *S. Pacif. Comm. Tech. Pap.* 86 : 21
 Laird, 1956, *Bull. Roy. Soc. N.Z.* 6 : 7

ANNEXE 2

- (a) Particulars of the usage of the name *Anopheles bironelli* Christophers, 1924.
 Christophers, 1924, *Ind. Med. Res. Mem.* 3 : 5, 16 (new specific name for *Bironella gracilis* Theobald), preoccupied by *Anopheles gracilis* Donitz, 1902
 Brug, 1928, *Geneesk. Tijdschr. Ned.-Ind.* 68 : 921
 De Rook & Soesilo, 1930, *Geneesk. Tijdschr. Ned.-Ind.* 70 : 476
 Soesilo, 1930, *Geneesk. Tijdschr. Ned.-Ind.* 70 : 695
 Mooij, 1932, *Geneesk. Tijdschr. Ned.-Ind.* 72 : 80. (*A. bironella* (sic).)
 Swellengrebel & Rodenwaldt, 1932, Die Anophelen von Niederländisch-Ostindien, Jena : 55
 Elsbach, 1937, *Geneesk. Tijdschr. Ned.-Ind.* 77 : 1044
 De Rook, 1938, in Klein, *Nieuw Guinea* 3 : 856

(b) Particulars of additional usage of the name *Bironella* Theobald, 1905, as a subgeneric name in the genus *Anopheles* Meigen, 1818, with reference to species other than *Bironella gracilis* Theobald, 1905.
Soesilo, 1932, *Geneesk. Tijdschr. Ned.-Ind.* **72** : 1035. (See also Annexe 3.)

ANNEXE 3

Particulars of the usage of the name *Bironella bironelli* (Christophers, 1924).
Soesilo & van Slooten, 1931, *Meded. Dienst. Volksgezondh. Ned.-Ind.* **71** : 129.

(Used once—see also Annexe 1.)

Soesilo, 1932, *Geneesk. Tijdschr. Ned.-Ind.* **72** : 1035. (See also Annexe 2(b).)

Stone, 1957, *Ann. ent. Soc. Amer.* **50** : 171